

**REMARKS**

Reconsideration of the claims, in light of the present amendment, is respectfully requested.

**Status of the Claims**

Claims 1, 8, and 15 are amended and the amendments do not add new matter. Support for the amendment can be found in the specification page 4, lines 2-9; page 5, lines 18-20; and page 7 lines 19-22.

Claims 6, 13, and 20 have been cancelled without prejudice or disclaimer of the subject matter thereon.

Claims 3-5, 7, 10-12, 14, 17-19, and 21 have been withdrawn.

Claims 1-5, 7-12, 14-19, and 21-30 are pending.

Claims 1, 2, 8, 9, 15, 16, and 22-30 are presented for examination.

**Rejections under 35 U.S.C. §112**

Claims 1, 8 and 15 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has amended claims 1, 8 and 15 to incorporate the definition of the predetermined distance in order to address the Examiner's rejections under 35 U.S.C. §112. Applicant submits that claims 1, 8 and 15 are definite and respectfully request that the rejection be withdrawn.

**Rejections under 35 U.S.C. §102**

Claims 1, 2, 8, 9, 15, and 16, are rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,876,193 by Hosono et al. ("Hosono"). The Examiner contends that Hosono discloses every aspect of the claimed invention. Applicant respectfully traverses the rejection.

The Examiner contends that Hosono discloses all the elements of the claimed oil pump rotor assembly. Applicant traverses this contention because the claimed invention discloses an oil pump rotor with novel tooth tip profiles and is not anticipated by Hosono. With respect to claims 1 and 2 of the claimed oil pump rotor assembly, "the tooth tip profile of the inner rotor is formed such that an epicycloid curve... is equally divided into two at a midpoint thereof to obtain two outer tooth curve segments, and the two outer tooth curve segments... are connected to each other using a curved or a straight line." With respect to claims 8 and 9 of the claimed oil pump rotor assembly "the tooth tip profile of the outer rotor is formed such that a hypocycloid curve..., is equally divided into two at a midpoint thereof to obtain two inner tooth curve segments..., and the two inner tooth curve segments are connected to each other using a curve or a straight line." With respect to claims 15 and 16 of the claimed oil pump rotor assembly the tooth tip profiles of both the inner and outer rotors are formed by the separation of cycloid curves as described above.

In contrast, Hosono discloses an oil pump rotor assembly wherein the tooth profiles of both the outer and inner rotors are formed along a combined cycloid curve. *See* Hosono, col. 3, lines 21-28 and 40-47. Hosono does not teach or disclose forming the tooth tip profiles by separating the

cycloid curves and connecting them by a curve or a straight line, and thus does not anticipate the claimed invention.

The Examiner also cites Hosono Fig. 10 as evidence of the anticipation of the claimed invention by Hosono. Applicant respectfully submits that Hosono Fig. 10 does not disclose the tooth tip profile of the claimed invention. Hosono's Fig. 10 shows a state of the inner rotor and the outer rotor being engaged to each other and rotating. The dots denoted by "Ks" and "Ke" in Fig. 10 are the intersecting points of the line of action "1" and the outer teeth of the inner rotor. The tooth profiles shown in Hosono's Fig. 10 are those of the claims presented by Hosono and, as described above, are formed by a combined cycloid curve. Fig. 10 does not show a tooth tip profile of a separated cycloid curve that is connected by a curve or a straight line, and thus does not anticipate the claimed invention.

Therefore, the application is clear and patentably distinguished from the cited documents.

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Respectfully submitted,

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